CHILDREN WITH SPEECH DEFECTS

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CHILDREN WITH SPEECH DEFECTS

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THE COMMITTEE FOR THE STUDY OF THE CARE AND EDUCATION OF PHYSICALLY HANDICAPPED CHILDREN IN THE PUBLIC SCHOOLS OF THE CITY OF NEW YORK

Report of the Sub-Committee on

CHILDREN WITH SPEECH DEFECTS

THE BOARD OF EDUCATION OF
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1941

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REPORTS

of

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PREFACE

This statement of findings and conclusions of the committee studying the problems of children with speech defects is one section of the report of the Committee for the Study of the Care and Education of Physically Handicapped Children in the Public Schools of the City of New York. The Committee was appointed by the Board of Education in 1936. All of its inquiries, which extended over a period of more than three years, have been made by sub-committees. No appropriation was given the Committee for the employment of technical and clerical personnel. The studies were possible only because of the voluntary assistance of physicians, educators and other specialists who have given much time and consideration to the problems presented by handicapped children, the provisions now made for them and the ways in which the existing program can be improved. Clerical and statistical help was provided by the Work Projects Administration and numerous philanthropic organizations.

In addition to the persons listed in this report the Committee is indebted to the Superintendent of Schools, Dr. Harold G. Campbell, to the teachers and school officials who have helped in the survey, to the boards of education who released members of their staffs to participate in the study and particularly to Dr. James F. Bender who assumed major responsibilities in conducting the survey and analyzing the data. The Director acknowledges his personal indebtedness to Dr. Lyman C. Duryea, to Dr. Robert T. Rock, Jr., and to Dr. Dorothy I. Mulgrave. Finally he is indebted to the Public Health Relations Committee of the New York Academy of Medicine which has critically reviewed this and the other reports of the Committee.

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I

ORIGIN OF AND NEED FOR SPEECH CORRECTION

ORIGIN OF AND NEED FOR SPEECH CORRECTION

Speech Education in the United States

Speech education has become an increasingly important part of curriculum planning within the last twenty-five years. At the turn of the century speech education throughout the United States consisted mainly of courses in elocution, debating, rhetoric, and public speaking. Such courses were taught primarily in universities and colleges, the University of Michigan and the University of Wisconsin being notable pioneers in this respect. Whatever speech education existed in the secondary schools was of an elocutionary nature. It became apparent eventually that platform address and stage speech were not the only types of oral communication and that adequate private as well as public speech was a necessary attribute of the well-integrated personality. Courses in the speech arts and speech sciences developed with increased emphasis on phonetics, speech pathology, and speech psychology. Although the focus on such courses was in colleges and universities* isolated high schools throughout the country began to expand their offerings in speech, developing especially work in public speaking, debating, and dramatic art. At the present time there is still a lamentable lack of uniformity not only in course offerings of well-established high schools, but also in the requirements for teaching such courses.

Country-wide recognition has been even more dilatory at the elementary level than at the secondary school one. As long ago as 1910 the City of Detroit introduced speech correction into the elementary schools. This program was among the very first in the country. State Departments of Speech Correction were initiated a few years later with the programs of Wisconsin and California. However, only a few states support programs of speech correction. State departments of education, nevertheless, are in many states cognizant of the need for a speech program

* University of the State of N. Y. Bulletin, Certification Bulletin No. 2, Albany, 1936.

and are attacking the problem wisely from the standpoint of teacher training. New York, for example, now requires a minimum of 28 semester hours* in speech training in the teacher training period of speech teachers.

A Study of Previous Surveys in the Field of Speech Correction

The earliest reference to a study of speech defectives in the public schools considered in this report is that of Hartwell, printed in the Proceedings of the International Congress of Education, July 25-28, 1893. Hartwell's study is concerned primarily with stutterers in Boston public schools.

In 1904, Conradi reported on the statistics he had gathered from a survey of 87,440 children in six cities in the United States. He estimated the number of stutterers in the adult population from military figures. By combining this estimate with the number of defectives in the school population, he concluded that there were in the United States about a half million speech defectives, half of them stutterers. It is to be noted that in this early survey the classification of defectives is very general. Apparently only three classifications were used: stutterers, stammerers, and others.

In the *Outlook* of February 11, 1911, there is a report of a personal survey made by Mr. Reigart, a New York City principal, of two public schools in New York City. He stated that 2% of the pupils were in need of speech correction.

The report of an extensive foreign survey appeared in April, 1911, in the *Volta Review*. This survey was made by Professors Ferrari and Salo. Professor Ferrari, in 1905, examined pupils in Bologna and Como and found 25% of them to be defectives. He extended this survey by questionnaire to the principal Italian cities. Data on 131,623 pupils showed that 7,775 were defective in speech. Occasional references are made to

* Many colleges and universities are now administering entrance speech examinations. See Appendix A.

early surveys in Denmark, Hungary, Belgium, and Germany. Usually only percentages of defectives are indicated.

A survey of 89,057, aged from five to twenty-one, in St. Louis, indicated 2,536 or 2.8% speech defectives. These figures were obtained by J. E. Wallin, who sent questionnaires to all school principals under the supervision of the Board of Education of St. Louis. The questionnaires called for information as to the number of stutterers, lispers, and other speech defectives. A definition of stuttering and lisping was included in the instructions. This survey was conducted for the specific purpose of determining the prevalence of speech defectives in order to demonstrate the need for speech correction.

Alfred Ronald Root reported in the *Elementary School Journal* in 1926 a survey of the public elementary schools of South Dakota. This survey was made in order to determine the number of speech defectives in attendance and the degree to which the speech defectives were retarded. Data on 14,072 pupils were obtained by means of questionnaires.

One of the earliest attempts to collect data on speech defectives in the Pacific Northwest was that of the Department of Research of the Portland public schools. A report of this survey was published in mimeographed form in 1927.

In the *Oregon Journal of Education* for January, 1929, Mr. Earl William Wells reported on results of a speech survey in the accredited public schools of Oregon. Information was solicited by questionnaire from 230 schools; approximately 25% responded. Of the 41,319 children examined, 3,626 were found to be defective.

There was published by the United States Office of Education in 1931 a classification of speech handicapped persons enrolled in speech correction classes in more than eight cities of the United States. The information was compiled from replies to questionnaires sent out by James Frederick Rogers.[1]

1 Rogers, James Frederick, The Speech Defective School Child, Office of Education, Washington, D. C. Bulletin No. 7, 1931.

By far the most comprehensive survey of speech that has been reported is that of the White House Conference, the results of which were published in 1931. According to this report which included data for forty-eight cities representing the entire United States, there are in America a million school children between the ages of five and eighteen so handicapped in speech as to need remedial treatment and training. This number does not include those with speech defects who left school before reaching the age of eighteen. It is interesting to note the close correspondence between the percentages of defectives reported on the questionnaire and the percentages of defectives found by a group of speech specialists who made a survey in Madison, Wisconsin, in order to check the results of the questionnaire. The results of the Madison study are within one-tenth of one per cent of the average percentage and median percentage found on the questionnaire survey.

Since the White House Conference report there have been a number of surveys that show the widespread interest in the problem of speech correction and indicate a desire on the part of some school systems to set up programs in speech correction based on the results of surveys of specific communities.

Speech Correction in New York, N. Y.

As far back as 1909 there is evidence of the need felt for an adequate program of speech correction. The Superintendent of Schools, Dr. William H. Maxwell, in his report of that year told of the meagre beginnings in speech correction made possible by the interest of a few teachers.[1]

Two years later in his report he indicated the potential scholastic and social restrictions that might be concomitant with speech defects and pointed out the need for the proper instruction of speech defectives. He made the following recommendations:

(1) An attempt should be made to ascertain the number of children in our schools suffering from speech defects,

1 Cf. New York City Department of Education. (*11th Annual Report of City Superintendent of Schools.* 1908-09. Hereinafter cited in shortened form.)

and, if possible, something of the life and family history of each sufferer to form the basis of subsequent treatment;

(2) Centers should be established in conveniently located schools for the treatment of speech defects as fast as teachers can be trained. Each handicapped child should receive special training of from a half hour to an hour each day in the class for curing speech defects, and the remainder of the child's time to be in the regular grade class;

(3) Teachers who have already demonstrated their ability in teaching English and who have shown that they possessed a large measure of tact and patience, should be assigned after a few months of special training, to the conduct of these centers;

(4) Departments for training teachers in the cure of speech defects, under the charge of specialists, should be established in the New York and Brooklyn Training Schools for Teachers, and perhaps also in the Jamaica Training School.[1]

Although the work carried on in speech correction during the next few years was not very systematic because of the paucity of trained teachers and the scarcity of funds, there was increased interest in speech work. As a result of this interest, on June 1, 1916, Dr. Frederick Martin became the First Director of Speech Improvement in New York City.

In his first report to Dr. Maxwell, Dr. Martin stated that the work was being carried on successfully by six teachers in fourteen schools in Manhattan; each teacher was assigned to two schools, a half-day in each with the exception of one school which required full-time service.

The work in speech correction progressed under Dr. Martin until his resignation in 1925. An Acting Director, Miss Agnes

1 13th Annual Report. 1910-11, pp. 150-154

Birmingham, was in charge of the work until the appointment of Dr. Letitia Raubicheck as Director in 1929. By that year, there were 28 teachers devoting their entire time to speech correction.

In her first report to the Superintendent, Dr. Raubicheck stated that the chief needs of her Department were:

(1) Agreement upon uniform standards of good speech throughout the entire public school system;
(2) An immediate increase in the number of teachers;
(3) A central research clinic for experimentation and the compilation of data;
(4) A reorganization of routine;
(5) Clerical help to handle departmental routine to free the Director for administrative and supervisory work;
(6) Additional funds for special office records.[1]

Later reports of the Director of Speech Improvement contain other valuable material. Several experimental studies were conducted during the school year of 1930-1931. These included a survey by two members of the Department of experiments conducted by other speech departments throughout the country, and the giving of a series of oral reports to the Department.

An experiment in teaching phonetic symbols to classroom groups of children was conducted in various schools throughout the city to ascertain the proportion of speech defects that could be corrected by class lessons in phonetics. "General improvement in the speech of all pupils, and the correction of a large percentage of speech defects were noted. . ." A speech improvement project was instituted in P.S. 86 and 121, Manhattan, aiming to extend service to every child in these schools. The speech and teeth of the children were examined, the defects recorded, and advice offered to the regular teachers of the schools on how to deal with the problems. This approach was successful since it was claimed that nearly 100 class teachers aided in the correction of nearly 3000 speech defects. Pronunciation tests given in

1 31st Annual Report, 1928-29, pp. 278-280

P.S. 67, 77 and 219, Brooklyn, showed that the use of the phonetic method of speech improvement resulted in a fewer number of errors.[1]

In 1932, the Director reported that the Division endeavored to teach 27,042 students through 82 classrooms and 28 special teachers in 181 elementary schools and 27 junior high schools. The 28 teachers, however, could visit only 208 out of 388 schools, and could reach only 10 out of 54 local school districts. There was no speech improvement service in the continuation schools and only one class in the evening elementary schools. And while only 21,615 elementary school students were now under treatment, 53,748 children were suffering from major speech disorders. The Director stated that a definite correlation existed between speech disorders and personality disturbances, which emphasized even more her list of needs and lacks. For example, suitable physical quarters for clinical work, comfortable seats for children, freedom from interruption and sufficient quiet were necessary for effective assistance.[2]

Because of the depression, however, no additional teachers or important equipment were added. The Director, therefore, concentrated upon the efficient operation of her current clinical service, and extended the cooperation with other agencies ministering to physically handicapped children. In addition to the regular teaching services, three after-school clinics were conducted in Brooklyn, Queens and Manhattan. Because the decrease in enrollment prevented the continuance of the usual college courses in conjunction with which the clinics were run, six teachers of the Department volunteered their services for this supplementary work. The compilation and editing of the pamphlet, *Suggestions in Speech Improvement for the Use of Classroom Teachers*, prepared by the Department after being authorized by the Board of Superintendents, was accomplished; the pamphlet was designed to assist regular classroom teachers to improve the speech of normal children. Clinical aid to handicapped

1 33rd Annual Report, 1930-31, pp. 315-319
2 34th Annual Report, 1931-32, pp. 228, 230, 233, 234

children was augmented by the services of 147 regular classroom teachers serving under special teachers of the Department in 94 schools. The Director reported the decreasing number of teachers who had been assigned the previous year to teach their classes in auditoriums or teachers' rest rooms where interruptions were the rule and where a dearth of blackboard facilities hampered the teaching process.[1]

In 1934, the Superintendent of Schools submitted with his Annual Report, a special report on handicapped children.[2] Contained therein was a report on speech improvement and the types of children served prepared by the Director and members of the Department. In it was a complete resume of the organization, objectives, clinical summary, detection of defects and diagnostic procedures, analyzing in full the operation of the Division. This account was supplemented later by a review of the history of speech correction for a quarter century, prepared by the Director in 1936 and submitted to the Associate Superintendent in charge. Contrasting the attitude of 1910-1911 with the time of writing, the Director stressed the radical change in attitude of the public toward the speech defective and his education, the far-reaching and invaluable additions that had been made to the knowledge and skills for correcting speech disorders, and the fact that public education had provided, to some degree, for an extension of services offered in speech improvement both for the normal and the defective child. She reported that 28 teachers were giving instruction to 27,206 students in elementary and junior high schools. The defects they were coping with were: stammering, lalling, lisping (lingual protrusion, lateral emission, nasal emission), acute defective phonation, acute foreign accent, nasality, denasalization, cleft palate, tongue tie, mal-occlusion, polypoidal growths, hypertrophied tonsils, deflected septum, aphonia, monotone, chorea, impaired hearing, and rigidity. The most prevalent defect was ilsping, with acute defective phonation next. It

1 35th Annual Report, 1932-33, pp. 321-325
2 36th Annual Report, 1933-34. Handicapped and Underprivileged Children; Special Schools and Special Care; Instruction in Homes and Hopitals. p. 25 et. seq.

is illuminating to compare these specific diagnoses with the handful that were known when these classes were started. The Director added that 12 members of the Division had volunteered to give a course in teaching methods used in speech improvement work to the public school teachers in the districts to which they had been assigned. More than 240 teachers had taken advantage of the course in 1935-1936. The most important advances of the year were the addition of five teachers, the assignment of a visiting teacher for service three days a week, and the formulation of a test for diagnosing defective phonation.[1]

Between 1932 and 1937, the Division concentrated, according to the Director, upon the needs of normal and gifted children as well as upon clinical aid for the speech defectives. In 1935 the Superintendent of Schools formulated a five year plan by which five additional teachers were to be added annually to the Division. Each special teacher was to be assigned to approximately ten schools, in each of which the principal was to designate one teacher, preferably a first year teacher, to serve as assistant teacher. This assistant teacher was to receive training both through alertness courses and individual instruction from the special teacher. The special teacher was to visit each of her schools for one whole day every other week, diagnosing new cases, setting up fortnightly corrective programs, giving demonstration lessons, consulting with her assistant on difficult cases, and conferring with parents and other agencies as needed. The assistant was to follow the advice or program and to give additional practice periods to the students in the speech clinics. At the time of writing, 38 teachers were visiting 268 schools, treating a total of 28,524 cases. Recommended for speech practice, among other suggestions were the following needs:

1. A diagnostic speech test for each pupil each school year;
2. A careful selection of regular teachers for first year children;

1 Letitia E. Raubicheck, *Then and Now in Speech Improvement* (Annual Report of Director of Speech Improvement, 1935-36, to Associate Superintendent McCooey).

3. Children in 1A-3B should have all functional disorders of speech corrected, and if this prove unavailing, their cases should be carefully investigated;
4. Every teacher should take about 10 minutes of oral reading, spelling and composition, or any other oral subject for drill to acquire clear, distinct articulation; and
5. Children in foreign neighborhoods should not learn the alphabet until they reach the second year, but should learn the letters by their sound names only.[1]

1 Annual Report, 1936-37 of Director to Associate Superintendent in Charge.

II

SUMMARY OF PROCEDURES AND STUDIES

SUMMARY OF PROCEDURES AND STUDIES

Purpose of the Study

The purpose of this investigation was to evaluate the present program of speech correction in the public elementary and junior high schools of New York City; to determine the effectiveness of this program in terms of modern thought with respect to speech education; and to determine the extent to which the program is meeting the problem in New York City.

Scope of the Study

This investigation has included the following:

1. A study of previous surveys in the field of speech correction.
2. A study of speech correction programs throughout the country.
3. Legislation with respect to speech.
4. License requirements for speech improvement teachers in New York City.
5. Size of the problem.
6. Classification of speech defectives.
7. Present organization of speech improvement classes in the public elementary and junior high schools of New York City.
8. The distribution of special speech correction work.
9. A study of clinical facilities throughout New York City.
10. The visiting of speech improvement classes in the New York City Public Schools by physicians and educators.
11. Analysis of questionnaires returned by visitors.
12. Analysis of questionnaires returned by speech improvement teachers.

A Study of Speech Correction Programs throughout the Country

Although cities vary greatly in the administration of their programs of speech correction, there appears to be greater interest than ever before in the development of this field. Programs such as those in Chicago, Detroit, Indianapolis, Philadelphia, and San Francisco are outstanding examples of the intelligent effort made by large cities to cope with this vital aspect of education.

In studying this aspect of the problem the Committee felt that a rather extensive scrutiny of some of the communities in which speech correction was known to be included might be more desirable than a wide sampling of opinion in systems in which speech correction is not included. A questionnaire, therefore, was sent to approximately fifty communities representing various parts of the country. Slightly more than fifty per cent of these communities replied. In many cases, however, the answers were not in a form in which they could be tabulated. For this reason there is included in the chart in Appendix B the answers from those questionnaires that most readily lent themselves to the purpose of this study.

Legislation with Respect to Speech

A letter was sent to all commissioners of education to determine whether or not special licenses were required for the teaching of speech or speech correction and whether or not there was legislation for the speech handicapped. As a result of the correspondence received in connection with this study, it is obvious that, while there is a great deal of interest in the subject of speech rehabilitation, there is a wide discrepancy in attempts to solve the problem. The forty commissioners who answered indicate that there is a special license for speech teacher in eleven states. Four states, including New York, have special legislation concerning speech rehabilitation.

License Requirements for Speech Improvement Teachers in New York City

One of the interesting facts disclosed by the survey was the rise in requirements for certification of speech improvement teachers. In 1916, when the department was organized, the requirements were:

(a) permanent license as teacher of common branches in the elementary school;

(b) 100 hours of work in field of speech.

In 1930 the requirements were revised. In addition to a permanent license in elementary school common branches, 360 hours of work in the field were required. There was a specific requirement of 60 hours in theory and clinical practice.

In 1938 the requirements were revised further. There follow the course requirements for eligibility for the speech improvement license in force at present.

A baccalaureate degree, (or equivalent preparation) and in addition, 15 semester hours in approved courses. Said preparation shall include:

(a) 12 semester hours in appropriate professional courses; and

(b) 36 semester hours in approved courses related to speech improvement.

The 36 semester hours required are to be distributed as follows:

(1) 18 semester hours in appropriate technical courses. At least one course in diagnosis and remedial treatment of speech disorders and one course in clinical practice in speech correction will be required. The remaining technical courses may be selected from the following fields:

a. Physiology of speech, speech pathology

b. Phonetics

c. Voice and diction

d. Psychology of speech; motivation of human behavior; mental, social and vocational adjustments.

(2) 18 additional semester hours in the aforesaid fields and/or in related fields such as general physiology, anatomy, general psychology, play production, English literature, oral interpretation.

Selection of Teachers

Teachers are selected by competitive examination administered by the Board of Examiners of the Board of Education of the City of New York. The examination is composed of a written test, an interview test, a class teaching test, an appraisal of the applicant's record, a physical examination.

Size of the Speech Correction Problem in New York City

The speech correction problem in New York City is probably the most complex in the world. There are more different types of problems and more actual cases than in any other public school system. There is a markedly polyglot population stemming from various language groups. The speech correctionist must deal with children whose I. Q. span ranges from genius to dull normal or lower. Moreover he is confronted with the serious tensions involved in a congested urban center such as New York City. Then too, there are to be considered the sociological and nutritional factors inherent, especially in underprivileged areas.

The fact that there are 697 elementary and junior high schools spread over a wide geographic territory indicates that the problem of teacher distribution is a difficult one. The influx of immigrants and the heterogeneity of their social and racial groups further complicate the problem of speech education.

Classification of Speech Handicapped Children Used by the Division of Speech Improvement

The criteria used at present for selecting children for speech improvement in classes in New York City are based on two major premises: (1) the defect must be one that requires individual attention and special training on the part of the teacher, and (2) the deviation must be sufficiently conspicuous to serve as an obstacle for vocational or social adjustment.

In Table I are grouped the types of speech defects and the number of speech handicapped as reported by the Department of Speech Improvement for the school year of 1939-40.

TABLE I

Classification of the Speech Handicapped Serviced as Reported by the Division of Speech Improvement (1939-1940)

Defect	Number
Stammering	4398
Lalling	581
Lisping (Lingual Protrusion)	10134
Lisping (Lateral Emission	3338
Lisping (Nasal Emission)	218
Acute defective phonation	5558
Acute foreign accent	930
High-pitched voice	1
Nasality	344
Denasalization	162
Aphonia or Hoarse Voice	264
Monotone	54
Cleft Palate	109
Cleft Lip	9
Marked mal-occlusion	652
Polypoidal or other growths	38
Hypertrophied tonsils	109
Deviate Septum	44
Chorea	15
Impaired Hearing	174
Mutism	4
Spastics	7
Tongue Tie	2
Paralysis	2
Delayed Speech	6
Total	27153

Classification of Speech Handicapped Children Used by the Committee

The Committee, dissatisfied with the existing form, devised the following one for its own use. The nomenclature that is employed is a modification of that used by the American Speech Correction Association.

SPEECH DEFECTS	MILD	MODERATE	SEVERE	TOTAL
ARTICULATION				
a) Unintelligibility				
b) Defective sounds				
S				
R				
L				
Others (specify)				
VOICE				
a) Hoarseness, Huskiness				
b) Nasality				
c) Denasality				
d) Unclassified (specify)				
RHYTHM				
a) Stuttering				
b) Cluttering				
c) Others (specify)				
SYMBOLIZATION				
a) Aphasia, dysphasia				
b) Dyslogia (psychotic)				
c) Others (specify)				
MISCELLANEOUS AND MEDICAL CASES				
a) Cleft palate and cleft palate speech				
b) Spastic Speech				
c) Mutism				
d) Speech of the deaf and deafened				
e) Multiple speech handicaps (2 or more of the above disorders)				
TOTALS				

(The degree of severity of a speech disorder must be determined by an expert. A rating scale which has proved helpful in this regard is to be found in Appendix C.)

SUMMARY OF PROCEDURES AND STUDIES

Definitions of Speech Disorders

Disorders of Articulation. Articulatory disorders can be separated roughly into two types—(1) a type characterized by a generally inaccurate, indistinct, partially or wholly unintelligible speech due to lack of precise utterance or articulation and (2) a type in which one or more sound units are faulty. The former type is referred to in literature as oral inaccuracy, as lallation or lalling, as indistinct articulation, or baby talk. The latter type is exemplified by the well-known substitute of the "th" sound for an (s) sound; or the substitution of a "w" for (r); or by the substitution of a non-standard sound for a standard sound.

Disorders of Voice. Vocal disorders are those in which the voice is defective or abnormal in quality, pitch or loudness. The voice is conspicuous either because of (1) unfavorable quality, (2) inappropriate pitch level or pitch range, or (3) improper degree of loudness. With regard to unfavorable quality, the nasalities, —hyper and hypo resonance—and hoarseness are most often found among school children.

Disorders of Rhythm. Stuttering is one of the most common types of poor speech rhythm. Other examples of faulty rhythm are jerky, poorly phrased, excessively rapid or excessively slow speech.

Disorders of Symbolization. Disorders of symbolization are those in which the patient is unable to use language or other symbols. Thus an adult aphasiac is partially or completely unable to speak, read, write or understand spoken language. Another example of a disorder of symbolization is dyslogia—a difficulty in expressing ideas because of impairment of reasoning as found among the psychotic and feebleminded. The speech may be well articulated and fluent, but incoherent, illogical, devoid of an adjustment to the realities of the situation.

Present Organization of Speech Improvement Classes

At the time of the investigation there were forty special teachers of speech improvement, one director, and one part-time visiting

teacher. Teachers of speech improvement are assigned by the Board of Superintendents to the offices of Assistant Superintendents. Each superintendent makes specific school assignments in accordance with his own philosophy of the function of the speech correctionist. This procedure has resulted in marked inequalities in the pupil load and in the number of schools to which teachers have been assigned. It has resulted also in widely different definitions of the types of service to be rendered. At the time of the present investigation, for example, three of the forty teachers were engaged, at the request of the Assistant Superintendents to whom they had been assigned, in teacher-training programs, thereby reducing their actual corrective work to one period per day.

Extent of Speech Improvement Services

Although there are 697 elementary and junior high schools in the city of New York, only 291 such schools are now being serviced by the Division of Speech Improvement. Table II shows the geographic distribution of speech improvement services throughout the five boroughs.

TABLE II

Distribution of Speech Improvement Services

Borough	Number of Elementary Schools	Number of Elementary Schools Served	Number of Junior High Schools	Number of Junior High Schools Served	Number of Speech Impro'ment Teachers
Bronx	101	61	17	10	9
Brooklyn	215	84	31	5	13
Manhattan	114	33	25	9	8
Queens	143	70	9	5	8
Richmond	36	14	0	0	2

Clinical Resources of the Community Other Than Those in Public Schools

A selected list of hospitals, clinics, and colleges in the five boroughs of New York City was investigated in order to determine the existing speech clinic resources outside of the public school system. The questionnaire method was used. A questionnaire was sent to all general hospitals with out-patient departments, to ear, nose and throat hospitals, to orthopedic hospitals, and to hospitals for women's and children's diseases. It was sent, furthermore, to dental clinics, mental hygiene clinics, and to such social agencies as maintain mental hygiene or dental clinic resources, as were listed in the Directory of Social Agencies.

A total of 130 inquiries were sent out and 85 replies were received; 10 replies indicated the presence of speech clinics. Eventually, including those speech clinics known to exist, though in some cases not replying, 13 such clinics were located. To each of these an experienced psychiatric social worker of the Pediatric Psychiatric Clinic of the Babies Hospital presented a questionnaire to be filled out. She recorded her impressions and attempted evaluations of the clinic work. The objective data obtained is arranged in the form of a chart and may be found in Appendix D. The Committee has found that there are too few clinics to meet the special needs of school children. The existing clinics are scattered and their personnel is insufficient to cope with the total problem.

Analysis of Questionnaires Returned by Visitors

The evaluation of the speech correction program was made jointly by speech specialists from educational institutions in the city and in the surrounding territory and by physicians interested in speech problems, namely, representative neurologists, psychiatrists, pediatricians, otolaryngologists, and oral surgeons.

A schedule was formulated whereby each of the forty teachers of speech improvement was visited by at least two speech specialists

and one physician. Each visit was designed to consume one-half day so that the visitors were provided with a cross-section of the teachers' programs and activities. A visiting form was prepared to provide each speech specialist and physician with a uniform means of recording observations, criticisms, and statistics. Each visit was reported on the visiting form. The visits were made from the middle of February, 1940 to the middle of May, 1940. Teachers were not informed as to when members of the Survey Committee would observe them.

As three teachers of the forty were engaged in teacher-training programs at the requests of their Assistant Superintendents and as one teacher was not reported on, the results of the visitors' questionnaires are based actually on thirty-six teachers instead of forty. However, the teacher-training programs were also observed.

The visiting form provided for the inclusion of data which have been grouped somewhat arbitrarily under the following headings:

(1) the age and grade span of classes;
(2) types of speech disorders found;
(3) physical conditions under which instruction is given;
(4) personality characteristics of the teacher;
(5) grouping of classes;
(6) type of instruction;
(7) gearing of instruction to diagnosis;
(8) administration and supervision of the program;
(9) cooperation with home;
(10) estimate of teacher's ability to diagnose speech disorders;
(11) additional services needed.

Age and Grade Span

A sampling of the reports submitted by visitors in regard to age and grade span shows that the data are not sufficiently accurate or complete to serve as the basis for a judgment. In some instances the visitors reported on the age and grade span for classes which they visited; in other instances, they reported on the total program of the teacher.

Composition of Classes

The visiting form filled out by the speech specialists and the physicians provided a description of speech handicaps seen and examined in the speech classes visited. Table III presents the distribution of speech handicapped children visited and the estimated degree of seriousness of the speech handicap. Eighty-one visitors' reports were made on this item; twenty-five reports omitted the item.

TABLE III

Degree of Speech Handicaps

Handicaps	Mild	Moderate		Severe
Articulation	355	810		626
Voice	33	139		76
Rhythm (including stuttering)	76	123		68
Symbolization	2	3		8
Multiple Speech Handicaps (not classified)			147*	22
Miscellaneous	6	54		54
Totals	472	1129		854

According to the reports submitted by the members of the Visiting Committee, the largest number of children examined had moderate speech handicaps (1,129). The second largest group had severe speech handicaps (854). The smallest group had mild speech handicaps (472). In numbers, articulatory cases were more numerous than rhythm, voice, or miscellaneous cases.

In interpreting these data, however, it must be kept in mind that visits were made from February to May. Many speech handicapped children had been attending the speech improvement classes from September. Some had been in speech clinics for a whole year preceding the year of the survey. In order, therefore, to make a valid estimate of the degrees of the various handicaps, it would be necessary to visit the same children at various times throughout the year to note their progress.

* The multiple speech handicaps were classified according to *severe* and *otherwise*.

Physical Conditions of Rooms

In general the teachers of speech improvement and the speech handicapped children work under decidedly unfavorable physical conditions. The Visiting Committee observed classes in speech correction held in teachers' rest rooms, classrooms, offices, storage rooms, medical offices, cooking rooms, cubicles, lunch rooms, assembly rooms (auditorium), workshop, closet, hallway, wash room, stair landing, laboratory, partitioned classroom, dressing room off-stage, special speech room, "standard" occupied classroom (shared with pupils and teacher of another subject), small room reserved for speech correction. A tabulation of reports of the visitors upon the physical conditions under which teachers work are summarized in approximate percentages under Table IV.

TABLE IV

Percentages of Reports on Adequacy of Physical Conditions

Physical Factor	Adequate	Inadequate
Size	47%	53%
Ventilation	70%	30%
Furniture	41%	59%
Lighting	71%	29%
Acoustics	58%	42%
Seating	49%	51%

Audio-Visual Aids

The aids most commonly used include: hand mirrors, charts, tongue depressors, toothpicks, mimeographed lessons, flash cards, notebooks, blackboards, textbooks, lint applicators, diagrams, games and pamphlets. The Department of Health supplies the tongue depressors and lint applicators; whenever books, notebooks, and blackboards are available, they are supplied by the schools. Charts are made usually by the speech improvement teachers or sometimes by classroom teachers. Mirrors are supplied by speech improvement teachers and sometimes by the children.

Personality Characteristics of the Teachers

While it is not possible to make a complete evaluation of a personality on the basis of one visit, it is interesting to note that there was no marked discrepancy in the reactions of visitors to teaching personalities. The following table summarizes the specific items noted by visitors in approximate percentages.

TABLE V

Percentages of Reports on Personality Characteristics of Speech Improvement Teachers

Characteristic	Rating			
	Excellent	Good	Fair	Poor
Sympathy	51%	38%	7%	4%
Patience	49%	36%	9%	6%
Vitality	54%	35%	7%	4%

In connection with remarks concerning the personality traits of the teachers of speech improvement it is interesting to note that favorable comments were numerous, and laudatory remarks not uncommon. That the teachers were able to administer speech correction to many children under conditions that were usually far from ideal was mentioned time and again. Among the personality traits most frequently reported were patience, tact, enthusiasm, and vitality. Perhaps the deportment of the children themselves was found to be the best indicator of the wholesome qualities that were noticed to predominate in the teachers, for the children were invariably reported as being polite, friendly, and responsive in the speech correction classes. It was a satisfaction for the Committee to find the Division of Speech Improvement composed of so many likeable individuals, because it believes that the correction of speech handicaps depends in large measure upon the attractive qualities of personality of the teacher.

Voice and speech patterns of speech improvement teachers were appraised by some of the visitors along with their evaluation of personality. Table VI summarizes these appraisals.

TABLE VI

Voice and Speech Characteristics of Speech Improvement Teachers

Rating of Voice				Rating of Speech in Percentages			
Excellent	Good	Fair	Poor	Excellent	Good	Fair	Poor
26%	46%	13%	15%	39%	41%	12%	8%

Grouping of Students

The Committee was asked to indicate whether classes were grouped according to age, grade, or defect. Table VII summarizes the replies to this question.

TABLE VII

Grouping of Pupils in Speech Improvement Classes Visited

Grouping	Approximate Percentage
By age	20
By grade	20
By defect	50
Heterogeneous	10

A few of the visitors commented on the fact that there was too wide a range in grade and age of students.

Types of Instruction

The instruction in the speech improvement classes was predominantly individual. The majority of visitors found both group and individual methods of instruction used, indicating that most teachers did group work for part of the time and individual work during the remaining time. Some teachers had devised group activity which could be carried on while they instructed individual cases.

SUMMARY OF PROCEDURES AND STUDIES

Methods of Instruction

Various types of instruction were observed in the speech improvement classes. While there was overlapping of methods, the auditory or ear-training method was most frequently reported. Other methods were reported in frequency in the following order: visual, kinesthetic, and tactile.

Adapting Instruction to Diagnosis

Of the replies received concerning the ability of teachers to diagnose speech defects, the great majority indicated that the speech improvement teachers were capable in this respect. Only about 10% of the replies indicated dissatisfaction with the ability shown regarding the ability to diagnose accurately.

With respect to the gearing of instruction to diagnosis, visitors' reports were not quite so favorable. About 20% of them indicated that instruction was not satisfactorily geared to diagnosis.

Record Forms

The record forms of the Division of Speech Improvement may be divided under two headings: (a) forms concerned with administrative matters; (b) forms concerned with the case-history and treatment of the speech cases.

Insofar as the administrative cards are concerned, they consist of a small white card which serves to notify the classroom teacher of the disorder and of the time and place of the clinic.

There is in addition a yellow record card for each child. This card is cumulative in nature and is part of the permanent record of the student. The purpose of this card is to indicate the significant facts about the individual pupil's speech and background. It is sent with him when he is transferred or goes to a higher school.

Each teacher is required to keep a list of all students in the Speech Improvement classes in the principal's office with a progress note at the end of each term. A clinical summary is submitted by each teacher in the department to the speech director

each year. This summary shows the number of cases handled, their progress or lack of progress.

Many teachers devise their own records to supplement those used in general. These vary in accordance with the initiative of the individual teacher.

Administration and Supervision of Speech Improvement Program

As has been stated previously, there is one director in charge of the forty teachers who teach in the Division of Speech Improvement. The Director visits each teacher, who is on tenure, once a year except in cases where teachers need additional help. During the three probationary years of each new teacher, she visits them once a semester, except in the first term when she visits two and, if possible, three times. The Director visits substitutes once each term. There is a monthy conference for the whole department and a special monthy conference for new teachers, held during the first two years of their teaching. This program of supervision and administration was praised by the large majority of the visitors.

Suggestions of Visitors

The suggestions made most frequently by the visitors expressed the need for:

(1) more frequent class periods;

(2) improvement of physical equipment and classrooms;

(3) an increase in medical and dental aid;

(4) expansion of case-histories to include medical and psychological aspects;

(5) arrangement of program so that speech improvement teachers would not have to lose time calling for students;

(6) increased training of classroom teachers in methods of speech correction;

(7) decrease in size of classes;

(8) homogeneous grouping according to defect;

(9) inclusion of physical, psychiatric, and psychometric examinations where indicated;

(10) adequate records;

(11) inclusion of a laboratory with audiometer, recording machine, and other desirable equipment;

(12) organization of more speech correction classes and appointment of more speech improvement teachers.

Analysis of Data Received from Speech Improvement Teachers

A questionnaire was sent to the forty teachers of speech improvement to ascertain a variety of factors that were not readily obtainable from the visitors' questionnaires. A review of these data indicates that these teachers fall into three general groups: (1) those who have served since the department was organized in 1916, (2) those who joined the department after the appointment of the present director in 1929, and (3) those who have been appointed within the past five years.

Speech Courses and Allied Courses Taken by Speech Improvement Teachers

As requirements for the position of speech improvement teacher have been increased, it is obvious that the greatest demands educationally have been made on the last group. Over half of the speech improvement teachers entered the department when the requirements included a permanent license as teacher in the elementary schools, in addition to 100 hours of special work in the subject. Slightly less than half were required to have 360 hours of special work in the subject in addition to the permanent license as teacher in the elementary schools.

Table VIII indicates the general speech areas in which the forty teachers have taken courses.

TABLE VIII

College Speech Courses Taken by Speech Improvement Teachers

Speech Areas	Number of Courses Taken by Teachers
Speech Re-education	110
Voice and Diction	91
Oral Interpretation	44
Speech Pedagogy	37
Dramatics	24
Public Speaking	24
Speech and Psychology	16
Speech Science	6
Total	352

Table IX indicates the general areas allied to speech in which the forty teachers have taken courses.

TABLE IX

Courses in Allied Fields Taken by Speech Improvement Teachers

Areas	Number of Courses Taken by Teachers
Education	42
English	40
Health	4
Foreign Languages	17
Psychology	35
Total	138

In-Service Courses Taken by Speech Improvement Teachers

In order to be eligible for each of the twelve annual salary increments, the teacher must take at least one two-semester hour course each year in any course approved by the Board of Education. These are generally referred to as *in-service training* courses. A detailed list of such courses as reported taken by the teachers of speech improvement reveal a wide range of selections.

SUMMARY OF PROCEDURES AND STUDIES

These are summarized in Table X under subject-matter areas.

TABLE X

In-Service Courses Taken by Teachers of Speech Improvement

Subject Matter Areas	Number of Courses Taken by Teachers
Speech	
Speech Re-education	18
Voice and Diction	18
Speech Pedagogy	7
Public Speaking	1
Speech Science	1
Dramatics	1
Oral Interpretation	12
Other Speech Courses	6
Art	
Courses in technique and in theory	15
Education	
Methods, Testing and Education History, Philosophy, and Administration	42
English	
Composition and Literature	40
Foreign Language	
French, German, Spanish	15
Health	
Gymnastics, First Aid, Theory	4
History	
American and European	6
Home Economics	
Cooking, Clothing, Handwork	3
Mathematics	
Algebra, Geometry, Trigonometry, Calculus, Statistics.	6
Psychology	
General, Abnormal, Child, Social, Educational, Mental Hygiene, etc.	35
Science	
Biology, Botany, Chemistry, Physiology	8
Miscellaneous	
Auto-motive Principles, Camping, Music, Bird Study, etc.	17
Total	255

Collegiate Degrees

Thirteen teachers in the Department of Speech Improvement hold the baccalaureate degree; three, the master's degree; and one, the Doctor of Music degree, making a total of 13 teachers who hold at least the baccalaureate degree. The Director holds the Doctor of Philosophy degree.

Allocation of Speech Improvement Teachers to Schools

In order to service the large number of scchools indicated in this program, many teachers serve a number of schools. The present personnel is divided among the five boroughs in rough proportion to the relative population therein.

Table XI shows the number of schools serviced and the number of cases handled by each teacher. The wide deviation in teaching load may be explained to some degree by the pupil population in the particular schools serviced, the type of schools, i.e., elementary or junior high school; and inevitably, by the interest of the assistant superintendent. The fact that two teachers are assigned to teacher training and that one is engaged in planning a program of speech for normal students obviously depletes the staff and deprives some children of instruction.

The fact that three teachers, because they were given special assignments by assistant superintendents, could not devote full time to teaching the speech handicapped should be borne in mind. It has special significance in the light of the data received in reply to a question concerning the number of serious cases which were not administered speech correction in the schools serviced, but which should have attention. Whereas the majority of teachers did not reply to this question, or replied that they did not know the answer, fourteen teachers reported a total of 1,625 cases that needed attention, but could not be serviced.

TABLE XI

Teacher Distribution and Teaching Load 1939-1940

Teacher	Borough	Number of Schools	Number of Cases
1	Brooklyn	6	170*
2	Manhattan	5	361
3	Brooklyn	5	383*
4	Manhattan	7	411
5	Bronx	8	419
6	Manhattan	5	423
7	Richmond	8	469
8	Queens	5	472
9	Queens	4	479
10	Manhattan	5	488
11	Manhattan	4	512
12	Bronx	12	546
13	Manhattan	5	549
14	Brooklyn	5	550
15	Manhattan	6	561
16	Queens	5	566
17	Brooklyn	7	570
18	Brooklyn	10	577
19	Queens	6	579
20	Brooklyn	9	583
21	Richmond	6	596
22	Brooklyn	8	647
23	Brooklyn	6	651
24	Brooklyn	10	664
25	Bronx	4	688
26	Queens	9	697
27	Queens	11	710
28	Brooklyn	6	746
29	Bronx	7	758
30	Queens	9	794
31	Bronx	7	809
32	Queens	12	861
33	Brooklyn	5	864
34	Bronx	8	1046
35	Bronx	9	1122
36	Brooklyn	12	1205
37	Queens	23	1208
38	Bronx	7	1614
39	Manhattan	5	1805
40	Brooklyn		**
	Total	291	27,153

* Two teachers devoted a large part of their time to teacher training.

** One teacher devoted full time to planning program for normal speech and to teacher training.

Distribution of Time of Speech Improvement Teachers

Because of the relatively small number of teachers that are allocated to 291 schools, the time distribution is necessarily uneven. Table XII shows the number of days per month devoted to schools.

TABLE XII

Division of Teachers' Time among Schools Serviced

Time Allotment	Number of Schools
½ day a month	6
2½ days a month	31
½ day each week	92
2½ days each week	13
more than 2½ days each week	6
2 afternoons a month	2
1 entire day each week	101
1 entire day once a month	1
1 entire day every other week	32
2 days in a month	2
3 days in a month	5
Total	291

Organization and Teaching of Speech Improvement Classes

There seems to be an undue amount of time required to screen and to test the children at the beginning of the school year and, to a lesser degree, at the beginning of the spring semester. On the average, three full days are required to organize the classes. This amount of time becomes notably significant in those schools that are visited once a week or even less frequently. In such instances, three or more weeks are really expended in organizing

the classes. Slightly less than half of the teachers indicated that they taught during all or part of the organization period. The remaining half replied in the negative or omitted answering the question as to whether or not they were able to teach during this time. Several teachers indicated that the time spent in organization varied from year to year in accordance with religious holidays. In neighborhoods where religious holidays were observed by large numbers, organization of classes and subsequent teaching were obviously delayed.

A second source of time lost in actual class procedure is the enforcement of a rule by some principals that the teacher of speech improvement must call for the children at their regular classrooms and return them at the end of the speech lesson. As most of the schools are housed in large buildings, much of the time of about twenty-five per cent of the teachers is taken by the observance of this ruling. In other schools, the principals cooperate in a number of ways to save the speech teacher's time and energy for teaching.

Again, teaching time is lost by travel which consumes as much as two hours a day of the schedules of those teachers assigned to two different schools on the same day. Three of the teachers, however, stated that they sacrificed their lunch hours to help compensate for the loss by travel.

Allocation of Time to Speech Improvement Class

The time devoted to speech improvement classes varies from twenty minutes in the lower grades to forty-five minutes in the junior high school. Such an allocation is in keeping with the interest span of young children in all subjects. The length of the class periods increase as the children become older. The fact that many speech improvement teachers have to collect the children for their classes from various parts of the building makes an appreciable difference in the total amount of time spent in speech improvement.

Age and Grade Range

As might be expected from the organization of the speech improvement classes there is a fairly wide age range and grade range in the classes. While there are a few classes apparently homogeneous as to age there are also a few classes having a range of ten years. The average range, however, appears to be from two to three years. Most teachers follow the procedure of teaching groups with similar speech problems. Because of the large numbers of children needing improvement most teachers can form such groups with an age range of two to three years.

Cooperation with Classroom Teacher and Home

The speech improvement teachers indicated that they cooperated with classroom teachers through conferences; through follow-up of students; through demonstration lessons in speech improvement in the regular classes; and through the formation of speech improvement clubs.

With regard to cooperation with the home, the teachers indicated conferences with parents in the home; interviews with parents at schools; arrangements for visiting speech teachers to visit homes; instruction of parents in methods of speech practice to be used at home; distribution of literature to parents; and speeches before parents' clubs.

Extra-Curricular Activities

Among the extra-curricular activities of the speech improvement teachers were mentioned: lectures for teachers' conferences, giving of in-service courses; attendance at speech conferences; committee work in connection with the department; research work; and a variety of duties connected with the monthly departmental conferences.

Recommendations of Teachers of Speech Improvement

The recommendations that were made most frequently by the speech improvement teachers were:

1. decrease in the number of schools to be serviced by individual teachers;
2. permanent rooms;
3. more adequate supplies and equipment;
4. more time for speech improvement, at least two visits a week to each class;
5. smaller groups;
6. more speech improvement teachers;
7. provision of practice books for the speech handicapped children;
8. more medical and dental help;
9. more complete physical examinations;
10. voice recording machines;
11. more time for contact with parents, vocational guidance for the speech handicapped, and more medical services;
12. assignment by director rather than by assistant superintendents;
13. better organization so that less time might be wasted in calling for students;
14. smaller geographic distribution;
15. increased training of classroom teachers in speech;

An examination of the observations and recommendations made by the visitors and those made by the teachers shows little divergence. The general trends in both sets of recommendations are practically identical.

III

SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

The Committee has found:

1. That the problem of speech correction in New York City is not only large, but also is extremely complicated because of the foreign language background of a large portion of the population. A pronounced foreign accent, because it is a hindrance in communication, is a speech handicap.

2. That services are inadequate in amount as revealed by:
   (a) The fact that only 291 of the 697 elementary and junior high schools are serviced;
   (b) The fact that within the 291 schools serviced there were reported by fourteen of the speech improvement teachers a total of 1,625 cases that should have been served but could not be.

3. That the last written examination (Jan. 1939) given to candidates for the license to teach speech improvement was generally unsatisfactory. (See Appendix E.)

4. That the present means of speech correction are unsatisfactory in that there is no unified program of supervision and administration;

5. That the development of the program has been uneven because of:
   (a) the limited number of teachers available;
   (b) the varying degrees of interest in the problem of the several assistant superintendents and some of the principals;

6. That undue amounts of time are lost because in many cases teachers have to collect children for the speech improvement classes;

7. That the amount of emphasis that the classroom teacher puts upon speech instruction depends upon the individual principal;

8. That there is lack of definite and suitable classrooms or offices for the speech improvement classes and the physical conditions under which speech correction is taught are in many cases unsatisfactory;

9. That the periods allotted to the speech handicapped in some schools are too few and too irregular to be effective;

10. That the large majority of the speech improvement teachers were found to be doing good work under adverse classroom conditions and in spite of difficult teaching schedules;

11. That in many classes at the time of observation some of the children appeared to suffer from minor rather than major speech defects;

12. That medical and dental supervision is insufficient, and that the psychiatric and psychological services available are entirely inadequate because of insufficient staff;

13. That the speech improvement program is seldom properly coordinated with the general school program;

14. That the instructional groups are frequently too large to enable the speech teacher to do effective work;

15. That the total teaching loads in terms of (a) number of children and (b) number of classes assigned are too heavy to result in effective work;

16. That the fact that the schools serviced by individual teachers are frequently geographically widely spread entails a subsequent loss of large amounts of time in travel;

17. That the term "defective phonation" is misleading because it is used in the Division of Speech Improvement to indicate articulatory disorders;

18. That in general the record forms concerned with diagnosis and case-history of the speech defectives are not adequate and that teachers are not provided with enough psychological and medical information concerning the children;

19. That there is at present no provision for indicating the length of time that the child may have spent in speech classes either in the school concerned or in other schools;

20. That there is no provision either on the speech record card or in any attendance book or on the pupil personnel record card for a record of attendance and progress of the child in speech correction save for a vaguely designated space for "consultations" on the reverse of the speech record card;

21. That, considering the seriousness of the problems of the speech handicapped children, New York City is not so well serviced as some of the other large cities throughout the country in speech correction.

IV

RECOMMENDATIONS

RECOMMENDATIONS

The Committee believes as a result of its studies and observation that if the present teachers confined their work to severely handicapped cases, they could meet the needs of the schools they are now serving. On this basis, and assuming that a comparable need exists in schools not now being served, the Committee estimates that a staff at least two and one-half times the size of the present one, i.e. a total of 100 teachers of speech improvement, would be required to service the city adequately. On the basis of the various studies and the reports of the visiting physicians and educators, the Committee makes the following recommendations:

1. *That greater emphasis be placed upon speech and the correction of speech defects at the kindergarten and early elementary schools levels. Minor defects of vocalization and articulation such as nasality, sound substitution, sound omissions, and baby talk should be corrected by the regular classroom teachers;*

2. *That the Division of Speech Improvement limit its service to the most seriously handicapped children, i.e., stutterers, those with severe articulatory or phonatory disturbances, and those with minor motor disorders affecting speech;*

3. *That children with severe organic and functional speech disorders be referred to hospital and educational clinics for treatment;*

4. *That the Division of Speech Improvement extend its services to children who are deaf or who have severely impaired hearing and to spastic paralytics who are in need of speech training;*

5. *That the Division of Speech Improvement extend its services to all other children severely handicapped in speech as the need for such services arises;*

6. *That assignments of children to speech classes be flexible and be based solely upon need for speech correction. Such assignments should not necessarily be made to correspond with the school year or arbitrary divisions thereof; that an arrangement be made for the pupils to report to the speech teacher;*

7. *That there be assigned to the Director two teachers experienced and capable of supervising methods and techniques employed by the speech correctionists to the end that speech correction services may be made more effective;*

8. *That in addition to the present requirements the examination of candidates for licenses as teachers of speech improvement be given by persons adequately trained and qualified in speech correction and that a written and practical examination be based upon the general principles of speech correction;*

9. *That the following minimum requirements be adopted:*

   a. *That candidates for the kindergarten and early elementary school licenses in the future be required to have at least two college or university semester credits in teaching speech in elementary schools and at least two college or university semester credits in speech correction;*

   b. *That in the future the license to teach speech correction in the New York City Public Schools should be based upon 45 college or university semester credits in speech. A minimum of 15 credits should be at the graduate level and a minimum of 15 credits should be in speech correction and clinical practice, and at least two semester hours in mental hygiene;*

   c. *That in-service courses be provided for teachers in the elementary grades;*

   d. *That elementary school teachers now in service be urged to study the teaching of speech in elementary schools and in speech correction schools;*

10. *That the present system of classification of speech disorders now used in the schools be simplified and applied uniformly, and that the overlapping in the present system be eliminated;*

11. *That because it is not reasonably possible to prescribe one schedule that all teachers can follow, the following guiding principles are suggested:*

   a. *The speech correction teacher should devote all teaching time to those children who have severe speech handicaps;*

b. When possible, groups should be arranged homogeneously according to age and speech handicaps; children needing individual attention should be given it as required;

c. Groups should be met more than once a week. Most groups should be given instruction two or three times weekly;

d. The pupil load per teacher should be limited to approximately 225 children which is as large as can be accommodated under these conditions;

e. Because the most adequate speech correction can be attained by classroom informality, the formal rigidity of the traditional classroom be abandoned;

12. *That speech correction teachers be provided with regular classrooms;*

13. *That speech correction teachers be provided with aids such as illusrative charts and pictures, hand mirrors, tongue depressors and appropriate practice books;*

14. *That each child selected for speech correction be given a general medical examination by the school physician;*

15. *That the school physician refer the child to appropriate specialists for special examinations when deemed necessary;*

16. *That records of medical examinations be made available to the speech correctionists;*

17. *That the record system be revised to provide on the pupil record cards a record of attendance, diagnosis of the speech handicap, and the progress made;*

18. *That all pupil records be made available to the speech correction teachers and that the program of rehabilitation be based on the medical findings and recommendations;*

19. *That the title of the division be changed to the Division of Speech Correction;*

20. *That adequate psychiatric and psychological social work be made available for speech handicapped children;*

21. *That the Board of Education urge upon the hospitals the need for special clinics.*

V

APPENDICES

APPENDIX A

Incidence of Speech Handicaps Among College and University Students

(based upon reports submitted by the directors of a selected group of speech clinics)

Institution	Number of Students examined and dates	Percentage having disorders of: Articulation	Voice	Rhythm	Symbolization	Miscellaneous	Examiner
Brooklyn College *	Not reported	39.00%	46.00%	4.00%		11.00%	Lou Kennedy
City College	19,750 (Feb. '31-June '40)	20.80%	.82%	2.61%			V. A. Fields
Dartmouth College	1,871 (1935-38)	7.60%	7.00%	6.50%			Charles H. Voelker
Fordham University		13.00%	11.00%			39.00%	George M. Glasgow
Fredonia Normal College	167 (1940)	40.00%	12.11%	2.00%			Mardel Ogilvie
University of Illinois	2,565 (1939-40)	6.54%	7.11%	.27%			Severina F. Nelson
College of New Rochelle	229 (1940)	22.00%	33.30%				Allys D. Vegara
Mass. State College	300 (1939)	1.65%	1.00%	1.32%		1.00%	Clyde W. Dow
University of Michigan	3,519 (1939)	.79%	.43%	2.87%		5.99%	Henry M. Moser
Purdue University	8,771	20.15%		6.96%		11.89%	M. D. Steer
Queens College	2,100 (1937-40)	19.20%	14.40%	2.00%		2.10%	James F. Bender
Rockford College	497 (1935-40)	29.42%	24.28%				Mildred F. Berry
Russell Sage College	218 (1939-40)	10.55%	12.38%	1.38%	2.75%		George Wm. Smith
San Jose State College	977 (1937-40)	33.33%	39.10%	3.99%		1.89%	Margaret Letzter
Teachers College, Columbia University	1,190 (1937)	unsatisfactory 12 per cent					Magdalene Kramer
Western State College (Michigan)	255 (1936-40)	2.5%	1.2%	1.2%	.01%	.04%	C. Van Riper
Willimantic State Teachers College	102 (1938-39)	31.45%	14.4%	2.25%			Ruth Bradley
University of Wichita	157 (1936)	14.00%	8.20%	3.00%			Martin F. Palmer
University of Wisconsin *	Not reported	39.66%	17.24%	20.69%	1.72%	20.69%	Robert West

* Reported on only students placed in speech clinics.

APPENDIX B

RESULTS OF QUESTIONNAIRES RETURNED BY 22 REPRESENTATIVE AMERICAN COMMUNITIES

QUESTIONS ASKED

City	1. How is the Speech Correction Program Organized?	2. How are the Speech Handicapped Children Discovered?	3. What is the Nature of the Diagnostic Procedure?	4. What Provision is Made for Speech Re-education and Training in the System? How much of it is carried by Specialists? By Classroom Teachers?	5. How Many Speech Correction Teachers Are in Your Department?	6. What Qualifications Did They (and Do They) Have to Meet for Appointment in Your Department?	7. Do Your Teachers Follow Any Special Methods or the Work of Any Particular Educator in Relation to Aiding Such Disorders as Stuttering, Articulatory Difficulties, Delayed Speech, Etc.?	8. What Follow-Up Work is Done With Students Who Are Discharged?	9. In What Ways Do Other Departments Cooperate With You?	10. Do You Have Any Statistics, Syllabi, Forms, Reports, Etc., That We May Have?	11. What Is the Plan of the Administration Used in Your School, i.e., Departmental, Platoon System, Etc.?	12. To What Extent Are Extra-Educational Agencies Such as Hospital Clinics Used?
Appleton, Wis.	Organized under the classification of "special departments."	In September each year the speech therapist makes a thoroughgoing survey of speech defects existent among pupils in kindergartens and grades; *not* in Jr. H. S. and H. S.	Due to number of schools and grade range only very informal methods of diagnosis used. Teachers alert to speech deviations and assume responsibility for reporting them.	Teachers meet upwards of 130 children twice weekly in ten schools. Classroom teachers interested in checking individual speech do attempt some carry-over from formal speech class.	One.	Has background of many years in field of teaching speech to deaf. She has had special training in Speech Clinics at 2 State Universities. Has state certificate for life from State of Wisconsin.	A combination of a number of special methods in therapeutics of speech correction used with special stress on Mental Hygiene and neurological approaches. Also oral drill in mechanics of speech.	Extends through the grades only.			"Departmental" is the plan of administration used in our schools.	Unfortunately, the set-up precludes extra-educational agencies such as hospital clinics.
Baltimore, Md.	Division of Special Education.	By surveys of schools conducted by speech teachers and by reporting of individual cases.	Test for defective phonation and for stammering.	All carried on by specialists who are itinerant teachers.	Eight.	Successful regular grade teachers and 14 credit hours of special training.	Martin Method.	Very little after one year. During first year monthly rechecks of progress are made.	Physical exams and hearing tests.	Tentative course of study not yet ready for distribution.	6-3-3 plan. We have all types of schools—no standard plan is followed.	At least 50% of cases are also seen in clinics.
Boise, Idaho	No department; speech correction begins in Jr. H. S., also in special opportunity school (mental defectives).	Through teacher, supervisor, nurse reports. Speech teacher examines new entering students.	Done by speech teacher.	Speech correction classes; then in regular grades under teachers with some (?) training in speech assisting three specialists.	Three.	Special work "at home and abroad"; ample practice—University of California Speech Department.	The 3 speech teachers have been trained at University of California Speech Dept.	After school by parents or guardian and other members of family; this in addition to school aid in general.	No assistance from other departments, except now and then a physician and the P.T.A.	No figures because work in progress only 3 years. Final results will not be known for two to five years.	6-3-3 plan; Platoon in 4th, 5th, and 6th grades.	Not used save that these agencies sometimes send cases to the school system.
Boston, Mass.	Special division. Speech improvement classes an integral part of city school system.	General circular sent to all city schools from Superintendent of Schools; teachers generally; parents; hospital clinics; private schools; employment; etc.	Reference to Department of School Hygiene (School physicians and nurses), or to family physician.	Incorporated in the courses of studies in English for all schools, generally.	Twenty-three including the director.	All permanently appointed teachers, teachers selected from regular corps of experienced and special equipped teachers. Assigned to speech after one year's observation and practice in speech correction. College degrees, Bachelor, Master, Doctor, continuous study by travel, summer courses, etc.	We follow an original and distinctive method suitable for Boston Schools. Method is eclectic; for example, Dr. Bender's book on Principles and Practices of Speech Correction, used as reference book.	Continuously throughout school system and beyond as far as is necessary and possible. Former students visit, write, and telephone their appreciation, gratitude, and accomplishment in many activities.	Sending candidates to speech classes, encouraging their regular attendance, giving opportunity for speech work in regular classes; nurses accompany children to various hospital clinics.	Several pamphlets have been sent to members of New York Committee. Supplies about exhausted.	Various plans. Generally system is planned on elementary, intermediate and high school order; Teachers College of Boston, Boston Clerical School for Young Women, Trade Schools and special high schools; practical arts, mechanical arts, commerce; disciplinary day school, special classes, educational and investigation measurement, vocational guidance, opportunity, vocational high school, speech improvement classes, lip reading classes, Horace Mann School for Deaf, etc.	To a very great extent. Reference, Department of School Hygiene.
Cedar Rapids, Iowa	**Definite part of the primary department.** A program also in process for Grades IV, V, VI.	**(a) Speech defects** checked by primary teacher; (b) Difficult cases referred to Coe College Clinic.	Observation and tests.	Speech re-education carried out by classroom teachers in regular speech lessons. They are assisted occasionally by specialists from Coe College.	None.	All our teachers receive special training.	Several methods applied individually. Use combination of stimulation and response, phonetic placement, sound modification and correct sound already possessed.	Followed up from grade to grade through the primary school.	Program not old enough to cover all departments.	Under separate cover.	Place of administration in primary classes is supervisory; in all other grades, departmental.	School nurses, local clinics and advisory check-ups of local physicians.
Chicago, Ill.	Twenty-five corrective speech teachers. One of these is supervisor, others assigned to schools. Usually teacher visits two elementary schools a day. High school assignments are on basis of one school a day for a teacher. Just now we are planning a high school examination so that those corrective speech teachers who serve the high schools will do so on high school certificates.	The teacher who finds that she has a child with a speech handicap reports it to her principal, who assembles the total number of speech handicapped children in his school, and reports the number to this office. If it is possible to service the school with a Corrective Speech Teacher this is done.	Each Corrective Speech Teacher is trained in the technique of diagnosis. In addition, we have a speech pathologist in the Bureau of Child Study to whom special cases are referred.	All corrective speech work done by specialists. Experiment being started to ascertain how much classroom teachers can do in this field.	Twenty-five.	Certificate to teach in elem. school; 15 semester hours of college or univ. work *or* 5 years' teaching experience in the subject; general average of 75% (no subject below 50%) in exams in following: Educational problems and methods of teaching corrective speech; evaluation of record; oral examination.	Not restricted to any particular special method. Some teachers have devised their own methods which they find superior to those generally advocated.	As long as children are in school their speech is observed. If relapse occurs they are again referred to a Corrective Speech Teacher.	Bureau of Child Study in making psychological exams always reports speech difficulties found.	Yes.	No Platoon system in schools. Some elementary schools departmentalized in upper grades.	No outside agencies employed.
Detroit, Mich.	As a separate division in the Department of Special Education.	Through a survey of the whole school system given each spring.	Preliminary examination by speech correction teacher in the spring survey. Careful examination by teacher in the fall at time of placement in speech correction classes. Further diagnostic examination as needs arise. May be in cooperation with family physician, public schools, glandular clinic, or psychological clinic, Wayne University Speech Clinic or hospital clinics.	Classes held in 147 centers. Trained speech correctionist in charge of each center. Classroom teacher cooperates but has no responsibility.	38 teachers; 1 supervisor.	A.B. or M.A., with minimum of 39 hours in special education, 10 of which must be in speech and speech correction (special courses include such work as anatomy, physiology, pathology of the organs of hearing, speech, and vision).	Any method found valuable. Work for stutterers originally based on Reed Method for the Correction of Stuttering. Miss Clara B. Stoddard added greatly to this method. Need of child is first consideration in selection of method.	Pupils placed on trial when dismissed. In doubtful cases rechecks made each month; in other cases rechecks may not be made until regular spring survey. Classroom teachers encouraged to send pupils for recheck at any time.	Excellent cooperation from other departments in psych. testing, physical exams and follow-up, affording opportunities for controlled speaking situations during training, etc.	Yes.	159 elementary schools have Platoon organizations; 36 have departmental or traditional.	Whenever arrangements for training can be made more satisfactorily in extra-educational agencies than in the public school set-up. Hours and transportation to centers are most frequently the influencing factors.
Ithaca, N. Y.	Part of division of education for handicapped and under direction of Director of Health and Physical Education.	Annual or bi-annual tests given individually by speech correctionist. Classroom teachers asked to cooperate.	Depends on nature of case. Scholastic and physical records examined; conference with teachers and parents; other data such as intelligence tests, aptitude tests, audiometer tests used when needed.	All the speech re-education by specialists with cooperation of classroom teachers and parents.	Two; both do speech correction about half-time.	No definite requirements. One at present has B.S., M.A. in ed. of handicapped; 50 sem. hrs. at Cornell in psych., anatomy, neurology, etc. Also one year course and six years experience at Martin Institute for Speech. Other teacher majored in speech at Ithaca College.	No definite method. Efforts made to use latest and most effective techniques.	No child ever considered discharged. Those who stop speech work, checked as long as they are in school.	No definite or considerable plans but all departments cooperate.	We have issued a number of bulletins, data in annual reports, included under separate cover.	In elem. school classroom teacher teaches all subjects except physical ed. Secondary schools have departmental system.	No need for agencies of this kind. School system includes well worked out plan for handicapped. There is a Reconstruction Home where cases of infantile paralysis, cerebral palsy, etc., are cared for.
Jackson, Mich.	Speech correction considered part of special education program, but the one teacher has rating of supervisor to call meetings of teachers for educational purposes. Reports made directly to superintendent, although there is close cooperation with the supervisor of special education.	At end of semester teachers submit a list of doubtful cases and at beginning of next semester these are looked up and scheduled. Each teacher is interviewed for any possibilities that may have been overlooked or newly entered. Several teachers have had courses in speech correction and we have teachers' meetings at intervals to acquaint them with diagnostic and therapeutic procedures.	Children give name, address, and repeat nursery rhymes, enough to give examiner samples of speech, with questions to cover any additional sounds. This type of diagnosis preferred to Stinchfield and other pictured tests, although they are used at times.	Specialist visits all schools once a week and makes the tests and necessary home calls. Each child's work recorded with instruction for continued work.	One.	At least a B.A. or B.S., with 34 hours in special education.	No. Each child is worked with individually and therapy applied which seems best suited.	Left in hands of teacher who consented to dismissal. She reports any relapse.	School doctor, nurses, and director of special education give exams where necessary and cooperate in general.	Yes.	Traditional type; 6-3-3 plan.	No facilities for hospital clinic service except for indigent cases.
Jersey City, N. J.	Part of general program for education of handicapped.	A speech correction teacher in every school. She keeps schools examined. Incipient cases of stuttering often recommended by class teacher.	Each speech correction teacher examines pupils in her own school. Test sentences and paragraphs used. (A recording machine has been promised.)	Speech re-education and training carried on by speech specialists. Cooperation by classroom teacher and parents.	Nine.	Elementary School Special Certificate to Teach Speech Correction.	No particular method with stutterers. Everything available used, according to individual needs.	Little follow-up work done because teachers needed for actual class work.	Other departments cooperate with plays, etc.		Majority of elem. schools are departmental from 6th to 8th grades. One school has Platoon system.	Medical dept. very cooperative. Children suspected of physical disability causing speech defects taken or sent to hospital clinic.
Minneapolis, Minn.	Speech correction is a part of the department of special education which is under instructional division.	(a) Through surveys at beginning of school semester and by speech clinics; (b) By teachers, school physicians, nurses, etc.	Speech clinicians use standardized articulatory tests. For stutterers and oral inactivity cases, case histories secured and children are diagnosed in speech clinics where a battery of tests is given.	Not adequate. Major portion by specialists although classroom teachers and parents encouraged to cooperate.	Twelve.	Regular teaching requirements plus 20 credits in field of speech correction. These not changed in last ten years.	For stuttering, therapy based on theory of dominance at present time. Articulatory differences, auditory stimulation mainly but in most of these cases there are contributory needs in mental hygiene.	Weak. Plan to take fewer cases in order to follow up better.	Handwriting Department and Dept. of Child Study cooperate fully. Regular teachers differ but majority try to cooperate.	Course of study in need of revision. This is planned for fall.	Minneapolis has 6-3-3 plan.	Occasional problem cases in diagnosis referred to University of Minnesota.

APPENDIX B (Continued)

RESULTS OF QUESTIONNAIRES RETURNED BY 22 REPRESENTATIVE AMERICAN COMMUNITIES

QUESTIONS ASKED

City	1. How is the Speech Correction Program Organized?	2. How are the Speech Handicapped Children Discovered?	3. What is the Nature of the Diagnostic Procedure?	4. What Provision is Made for Speech Re-education and Training in the System? How much of it is carried by Specialists? By Classroom Teachers?	5. How Many Speech Correction Teachers Are in Your Department?	6. What Qualifications Did They (And Do They) Have to Meet for Appointment in Your Department?	7. Do Your Teachers Follow Any Special Methods or the Work of Any Particular Educator in Relation to Aiding Such Disorders as Stuttering, Articulatory Difficulties, Delayed Speech, Etc.?	8. What Follow-Up Work is Done With Students Who Are Discharged?	9. In What Ways Do Other Departments Cooperate With You?	10. Do You Have Any Statistics, Syllabi, Forms, Reports, Etc. That We May Have?	11. What Is the Plan of the Administration Used in Your School, i.e., Departmental, Platoon System, Etc.?	12. To What Extent Are Extra-Educational Agencies Such as Hospital Clinics Used?
Newark, N. J.	Department of Special Classes which is under the Department of Health and Service.	Diagnosis of students as they enter school.	Tests to determine dominance, rhythm, speech, and hand quality.	All speech correction under speech specialist. Minor deviations handled by classroom teacher.	Eleven teachers and one supervisor.	Must meet all requirements for a regular teaching position. Special examination provided to estimate: applicant's background, knowledge in fields of speech and associated fields, clinical experience, ability to meet speech problems scientifically.	Each diagnosis indicates the procedure. No adherence to one method.	Discharged cases are rechecked according to grade levels; kindergarten and primary twice a term for 3 to 4 years; intermediate once a year.	The following departments cooperate: Health, Child Guidance, Reference and Research, Music, Art, English, Board of Education Library and Visual Aids, Elementary Education, Attendance; Dean of Girls, Director of Publications.	Yes. Not compiled, however, because of lack of clerical help.	About 1/3 Platoon schools; others traditional or combination. All on activity-unit type of progressive education.	The 20 hospitals are available when extension of the clinical service is necessary.
New Orleans, La.	Program carried by Dept. of Corrective Speech and Deaf Work, a special division. Includes 6 teachers of corrective speech, 2 teachers of the deaf and a supervisor who reports directly to one of the assistant superintendents. Work at present offered in only 39 of the white elementary schools.	Cases located mainly through surveys made by speech teachers of First B Grades; advanced pupils referred by classroom teachers, if there is question of speech handicap; transfers referred by speech teacher to new class. Once a year check on all children entering in advanced grade. Outside agencies like Child Guidance Clinic, various welfare agencies, and some physicians occasionally refer pupils.	Different methods used. Picture charts to test sounds, rhymes or questions which include sounds. Older children tested by material in various speech books.	Each teacher assigned to from 5 to 8 schools, which are visited twice a week regularly. Remedial cases grouped according to grade and type of training required and get 20 min. periods of group instruction twice a week. In a few smaller schools, it is only possible to schedule one re-training period per week. All re-training done by specialist who tries to enlist cooperation of classroom teacher.	Six.	At least 3 years' classroom experience; 6 sem. hrs. special speech training which shall include courses in speech correction, speech pathology and phonetics; practical experience in speech clinic.	No particular methods followed. Textbook lists found helpful. Stutterers given no articulation drill, but effort made to give pupil experience of successful speech in a social situation. Games, chorus work, dramatization, puppet shows, or any type of work where child can speak successfully.	No formal follow-up. Children know they are free to return for help if needed. Special teachers make effort to check up informally through classroom teachers.	Medical Dept. aids in securing correction of physical defects; Visiting Teacher Dept. investigates special cases which cannot be handled in school. Psychologists from Vocational Guidance give intelligence tests in special cases.	Only speech clinic in New Orleans is one conducted by the supervisor and teachers of this department at the Eye, Nose, and Throat Hospital. Any severely handicapped pupil from the speech classes may be sent to clinic by speech teacher; in addition children from the parochial and private schools are accepted.		Any cases requiring special services aside from speech training referred to Medical Dept. or to Visiting Teacher Division which makes recommendations or contacts with agencies providing special services.
Oakland, Calif.	On the basis of having one specially trained teacher in each elem. school capable of carrying on the speech program on a part-time basis, her own regular class taken by a substitute for one or two hours a day. Also six specially trained speech teachers to serve those schools in which there is no teacher.	(a) By semi-annual report from classroom teachers. (b) By the nurse in the course of regular inspections. (c) By the school physician occasionally.	Each child is examined by one of the two teachers, acting in a supervisory capacity. If necessary child is referred to a physician on the school staff who specializes in voice and speech.	No systematic program. In several schools speech teacher has been able to organize such a program unofficially.	Six full-time and twenty-seven specially trained teachers for this work.	Of the 33, approximately half hold speech credentials from State Dept. of Ed.; other half have completed at least four units special training in addition to regular teaching credentials.	Program of speech correction advocated by State Department of Education.	No systematic program of check-up.	Speech work an integral part of the Department of Individual Guidance. Nature of cooperation shown in report.	Yes.		For more severe cases, clinics of Children's Hospital of the East Bay are used. Physician who specializes in speech on our staff is also member of that clinic
Philadelphia, Pa.	Part of special education.	Survey of each school by speech supervisor or teacher.	Survey of sounds used and check on chart.	All difficult cases by specialists, ½ hour weekly, supplementing classroom teacher. Others checked by specialists.	Twenty-four.	College, including 20 semester hours of special training in the field.	Special methods, yes. No particular school of thought. Best of all.	Followed by speech teacher assigned to school.	Whatever must be done, can be done.	Yes.	Plans differ. Older children, departments; others, classroom.	Whenever needed.
Pittsburgh, Pa.	Special division under direction of associate superintendent.	Each semester all 1B's tested, also new entrants in other grades. Cases also referred by doctor, principal, classroom teacher and school psychologist.	Younger children by pictures and familiar objects; older ones given sentences to repeat and something to read.	Most of work by speech specialists, with cooperation in some schools of classroom teachers.	Six.	All have met state requirements and have been certified.	No.	Checked once a month for several months.	School doctor; psychologist; chief medical examiner with audiometer tests and physical exams; vocational counselor.	Letter to parents; case history card; manual for classroom teacher.	Modified Platoon.	To great extent with good results; also Child Guidance Bureau and Pitt. League for Hard of Hearing.
Reading, Pa.	Special division.	Classroom survey by the speech teacher.	Oral tests used for diagnosis.	All of it by special individual instruction. None by classroom teachers.	One.	State Department Certificate.	Yes.	Periodical surveys by the department.	There is complete cooperation.	No.	Departmental.	Occasionally they are used about one in twenty cases are referred to clinics.
Saint Paul, Minn.	Part of Division of Special Classes.	Survey conducted by speech clinicians.	Sentences, words, games, history, bimanual performances, manual performances.	All speech correction work by speech clinicians.	Three.	State Certificate for Teachers of Speech including 20 quarter credits in speech or 4 year course in speech correction at Univ. of Minn. or equivalent.	Two teachers use dominance and auditory stimulation advocated at Univ. of Minn.; other teachers, Columbia School of Speech.	Discharged cases rechecked at discretion of speech clinicians.	Hygiene Dept. for physical exams; psychological exams when indicated by psychological examiner.		Departmental in some schools, Platoon in others.	Other agencies refer cases for diagnosis and treatment of speech defects.
Santa Barbara, Calif.	Carried on by Department of Remedial and Developmental Speech, headed by Director of Speech.	Speech handicaps discovered through elem. school survey and teacher reference.	Individual test for each child. Key sentences and short talk from each to note defects.	Carried on by specialists. Cooperation by classroom teachers.	Five.	Special Speech Credential issued by State after completing 12 units, 2 each in: child mental hygiene, adult mental hygiene, applied phonetics, correction of articulation defects, etc. Also 100 hrs. teaching.	Combination of ideas from Mrs. Mabel F. Gifford, Miss Sarah Barrows, Conrad Wedburg at U.C., Miss Lila B. McKenzie of San Francisco, and techniques from London Speech Clinics, also Columbia.	Child checked once a month at first and then twice a year.	Guidance Dept., Health Dept., Research Dept.		In two junior high schools and the high school we have departmental plan. Grade schools have usual set-up of about 30 children and teacher.	Sunshine Cottage for children with tubercular tendencies has helped. One severe stutterer returned completely cured. Classroom teachers most cooperative.
Shorewood, Wis.	Organized separately, although in the high school it is closely coordinated with the speech department.	All entering students are examined by the speech correctionist. This year an improvement was made—each first and second grade child was diagnosed by the classroom and speech teachers.	Each child is given an individual examination, informal in nature but planned to disclose any difficulties.	Responsibility is speech teacher's. Classroom teachers cooperate. Unusually good carry-over of re-educative efforts. Primary teachers now give more speech training; new plans evolving. Speech teacher discusses work at high school faculty meeting and curriculum meetings of elementary school teachers.	One. Hard of hearing work carried on by specialist in that field.	Wisconsin license in speech correction. Present teacher has this license and a master's in the field.	No special theories or methods. Theories and methods applied as individual problems require them.	Check made few months after dismissal. In cases like stuttering check is made either directly or through questions to the classroom teachers regularly for 2 years (or as long as in school for high school pupils).	Health Department cooperates in observing, diagnoses, making recommendations and reports. Also two psychologists give information and advice regarding child and his home.	Yes.	Based on meeting pupil needs. Elem. school problems worked out cooperatively by principal, teachers, psychologists, nurse, etc. Similar procedure in high school.	Only slightly. Occasional cooperation between speech teacher and Junior League Curative Workshop. Fine cooperation from doctors, surgeons and orthodontists to whom children go.
Washington, D.C.	One full-time speech teacher assigned to each division.	By medical inspectors (M.D.'s), school nurses, surveys made by speech teachers, sometimes by grade teachers.	Form used by medical dept. was recently sent to N. Y. Board of Education.	Practically all by specialists in field of speech.	Six.	(a) College degree. (b) At least two courses in speech correction given by recognized speech specialists. (c) Must be under 40 years of age.	Special methods.	Children are examined periodically after correction.	(a) They help to detect speech defects. (b) Teachers, under advice of speech teacher, do what they can to aid the case, to use corrected sounds, etc.		Departmental. (One large Platoon school only.)	Some cases given extra treatment in Epis. Eye and Ear Hospital where a Saturday clinic is conducted weekly.
Yonkers, N. Y.	Functions under its own name—not as part of another division.	In a general survey made by speech teachers each year A speech teacher goes into every room in a building hearing each child talk.	A much more thorough diagnosis is made when the speech teacher meets the child again in a class. Pictures illustrating the words are given to the child and as he names the objects, teacher notes reponse. Test is repeated twice during the year.	Two speech specialists in 11 elementary schools out of 26. Classroom teachers cooperate in varying degrees. Speech classes meet in the 11 schools once or twice a week at regular times.	Two.	Miss Zerler has B.S., M.A., and 7 years' experience in speech work. Miss Herman has B.S., working on M.A., former classroom teacher who showed great interest in speech.	Mental hygiene approach used to study speech disorders. Case histories and work for personality readiustment used in addition to speech retraining.	Cases checked at least once a year teachers making reports if return of symptoms. Little follow-up into junior high school. In a few cases students return to elem. school for more work.	Medical Dept. and Psychology Dept. give tests when necessary. Oral Hygiene Dept. helps in urging orthodontia work. Visiting teachers supply information on home and environmental condition. Lip reading teachers and speech teachers work together. Also one remedial reading teacher.	Yes.	Grades divided into homogeneous groups. One school, cooperative grouping in 3d grades. One school now following Platoon system. Upper grades 5, 6 and 7 departmentalized.	Family Service Society frequently assists; social workers from hospital clinics occasionally consult on speech cases.

APPENDIX C

A Proposed Rating Scale for the Classification of Speech Disorders

I. Defects of Articulation (dysarthria or dyslalia)

Average speech habits	Slight deviation from average	Definite peculiarity of articulation	Slight loss of intelligibility	Considerable loss of intelligibility	Nearly unintelligible	Unintelligible speech

II. Defect of Voice (dysphonia)

Average voice	Slight deviation from average	Definite a typical voice	Somewhat unpleasant or inaudible voice	Irritating or disadvantageous voice	Voice a handicap in communication	Aphonia

III. Defect of Rhythm (dysphemia or dysrhythmia)

Average regularity of speech	Slight, intermittent breaks in rhythm	Noticeable breaks but fairly normal ease of communication	Distracting speech	Noticeable disruption of communication	Serious interference with communication	Unable to communicate

IV. Defects of Symbolization (dyslogia or dysphasia)

Average comprehension and intelligibility	Probably a slight deficiency	Definite mild disturbance of speech	Occasional mild interference with communication	Definite interference with communication	Major loss of speech function	Unable to communicate

V. Unclassified (mixed)

Average	Slight deviation	Noticeable deviation (probably unimportant in ordinary speech)	Slight handicap	Definite handicap	Nearly unintelligible	Loss of speech

APPENDIX D

TABULAR ANALYSIS OF SPEECH CLINIC RESOURCES – JUNE 1940

	Speech Clinic	Address	Founded	Director	Hours	Fees	Ages	Sources of Patients	Staff	Consultations with Other Services	Types of Examinations in Clinic	Treatment	Remarks
Separately organized Clinics in O. P. D. M. O. P. Clinic Under Pediatrics Special Hosp.	Jewish Hospital of Brooklyn	Speech Clinic (under Pediatrics) Prospect Pl., Classon & St. Marks Aves. PRospect 9-3900		Isaac W. Karlin, M.D. Adjunct Pediatrician Director of Speech Clinic	Sat. 9:00-1:00			Pediatric Clinic Social Agencies Schools Physicians etc.	Director Psychologist volunteer Speech Instructors 2 Undergraduates Asst. 2 (From Brooklyn College)	Endocrine, Ear, Nose & Throat and other clinics League for Hard of Hearing	1. Phys. in Ped. Clinic 2. Spec. Exam. by Dr. Karlin Neurol. & Psychol. 3. Speech	Very few received only individual	Do not take Mentally Retarded Children.
	New York Post-Graduate Hospital	Speech Clinic 302 E. 20th St. GRamercy 5-7080	1920	Mrs. Olaf Starke Director Speech Clinic	Sat. 9:00-12:00	.50 above 14 yrs. .25 below 14 yrs. Some Free	Age: begins at 2½ yrs.	B'd of Ed. Clinics Social Agencies State Dept.	Director Speech Teachers 5 Part Time	Ear, Nose, Throat, Mental Hygiene Clinic	Speech examination Most cases have had Pediatric exam.	Group—individual or combination	Do not take Mentally Retarded; C.N.S. Lues Disease "Pedagogical" aspects important.
	Harlem Eye & Ear Hospital	Speech Clinic 2099 Lexington Ave. LEhigh 4-5060	1936	J. Levbarg, M.D.	Sat. 9:00-1:00	.50 Also Free	Age: Infancy to any age	Physicians & Schools	Medical Director (ent) Speech Teachers (Bd. of Ed.) 4 Soc. Serv. (to begin)	Eye Allergy Ear, Nose, Throat	Director Does Neurological Psychiatric and Hypnosis Physical Psychological Audiometric	Individual	ALL voice and speech problems.
	Stuyvesant Polyclinic	Speech Clinic 137 2nd Ave. ORchard 4-0232	1928	J. A. Glassbury, M.D.	Sat. 1:00-4:00	.25 Some Free	Age: 3-18	Public Schools Physicians Hospitals Churches, etc.	Medical Speech Specialist Psychologist 1 Speech Teachers 4	Use facilities within the Polyclinic inclusive No Psychiatric Clinic	History Physical Phonetic Vocal Psychological	Individual, group or combined	Dr. Glassbury, a practicing ent. man feels sp. work should be medically oriented.
In Settlement House	The Educational Alliance	Speech Clinic 197 East Broadway GRamercy 5-0250	1931	W. Matthew Diamond (Psychologist and Speech Orthologist)	M. T. W. Th. 3-10 PM Fr. 3-6 PM	5.00/Mo. (40%) 3.00/Mo. (30%) Free (30%) 2-3 units wk.		Bd. H'lth.' WPA Guid. Serv. Schools Bd. of Ed. Univ'ties Henry St. Settlement Soc. Agencies Hosps. (Neur. Inst.)	Psychiatrist (Consult) Orthodont (") Psychologist (") Soc. Wkr. 1 Sp. Tchr. 1 Speech Path. 2 full-time " " 1 part time	Clinical Resources outside Neurological, Ped. Bur. Child Guid., etc. Ear, Nose, Throat	Diagnostic Speech Test Psychological and Physical as indicated	Individual and group Articulatory disorders	Every speech defect has emotional concomitant, "Mental Hygiene" point of view.
In Universities or Colleges	Teachers College Col. Univ.	Speech Clinic 120th St. bet. Amsterdam & Broadway UNiversity 4-7000	1928	Geo. Kopp, Ph.D. Director Asst. Prof. Sp. Ed.	Tues.10-11 AM Thur. 4-5 PM	None		T. C. Guid'ce Bureau Schools Physicians Hospitals Social Agencies, etc.	Psychologist 1 Sp. Teacher 1 Grad. Asst. 2	Tec. Guid. Bureau Lab. fr. Psychological, Visual, etc. Coll. P. and S. Classes of Sp. Correction in T. C.	History Speech Exams. Local throat exams by Dr. Kopp Medical exam. when indicated (referred out)	Individually and in groups	Approach, primarily educational.
	New York Univ.	35 W. 4th St. SPring 7-2000	1934	L. Raubicheck, Ph.D.	Summer Months	None		Takes 45 children each summer to provide training for speech teachers.		Oral Surgeon Sch'l for Deaf Psychiatry (Dr. Bender) Neurological Through Bd. of Ed. Dept. Mental Ratings	1. Speech Diagnosis		Clinic incidental to Dr. R.'s teaching of speech teachers.
	Queens College	Queens College Childn's Speech Clinic 65-30 Kissena Bl'v'd. Flushing INdependence 3-4700	1939	J. F. Bender, Ph.D. Director Ch'rm'n Dept. Speech	Sat. 9:00-1:00	None	40 cases at any one time; waiting list; mostly Queens	Hospitals, Social Agencies, Bd. of Ed.	Psychologist 1 Sp. Correctionist 2 Undergrad. Students 10	Local hospital facilities for Endocrine, gen. health Eye, etc. Educational Cl. C. C. N. Y. for Psychometric	1. Speech Diagnosis 2. Audiometer 3. Health exam. report and school record serv. in all	Combination individual and group	
	Fordham Univ.	Fordham Child Guidance Clinic Kevling Hall, F. U. SEdgewick 3-2700	1930	Thos. J. Snee, Ph.D. In Charge of Speech Work and Prof. of Psychology	Thurs. AM Fri. AM (remedial speech) Sat. 9-11 AM	None	Age: 3-25 No religious requirements	Schools, Parents Interested individuals	Psychiatrist 1 part-time Psychologist 2 Psych. Soc. Wkr. 1 Sp. Correct. 1 Student Psychologist	As needed Hospitals and Private Physicians	1. Speech 2. Psychometric and Psychological 3. Audiometric, etc. 4. Social, on all cases 5. Psychiatric if indicated 6. Phys. by Psychiatrist	Individual no group	Treatment is part of Child Guidance set up under psychological direction.
Special Services within Child Guidance or Mental Hygiene Clinics	Mt. Sinai Hosp.	Children's Health Class 1 East 100th St. ATwater 9-2000	1919	Dr. I. S. Wile	Wed. 3-6 PM	Reg. Fee Mostly Free	Manhattan Bronx Brooklyn—if S. S. is covered for Age 2-16	"Fifty Agencies" Throughout City	Pediatrician Neuropsych. Pediatrician 1 Dentist 1 Psychol. 1 Recreat. Wkr. 1 S. S. 3 Rem. Sp. Tchr. 2 Vol. S. S. 4	Full resources of Hosp.	"As Required"	Combination of group and individual	Speech secondary to total problem.
	Long Island College Hosp.	Child Mental Hygiene Henry, Pacific & Amity Sts., Brooklyn MAin 4-4000	1931	Stanley Lamm, M.D.	Sat. AM	.50 to Free	Brooklyn Age up to 12-13	Schools Bureau Child Guid. Bd. of Ed. Jewish, Cath. & Prot. Social Agencies of Brooklyn	Pediatrician with training in Neurol. and Speech Psychologist volunteer Soc. Worker Volun. and Undergrad. Students in Speech	All clinics in Gen. Hosp. Psychotic children referred to Brooklyn State	History, Physical and Mental Psychiatric by Dr. Lamm		Speech work not yet under way.
	Brooklyn Child Guidance Clinic	Brooklyn Child Guidance Clinic Speech Correcting Section 823 Eastern P'kway Brooklyn SLocum 6-3125	1925	Dr. E. Reed	Monday and Thursday PM	Free	Brooklyn mostly	75% from Child Guidance Clinic From schools and others where no behavior problem	Psychiatrist 1 Psychologist 1 (Speech Pathologist) Speech Correct. Teacher 1	Clinics in Brooklyn hospitals	1. Analysis of speech 2. Psychological and Education Achievement tests 3. Some determination of Social and Personality Adjustment	Small groups (2-3) from time to time usually individual	Information obtained by telephone.
	National Hospital For Speech Disorders	Child Guidance Mental Hygiene Cl. Speech Clinic Voice Cl. (patholog.) Kindergarten	1916	Dr. James S. Greene	Mon. thro' Fri. all day, Sat. AM. Mon., Wed. PM	.25 Some Free	3 years up	Board of Ed., other clinics, social agencies, state dept. prvt. physicians	Psychologists 3 Speech Therapy 8 Kindergarten tchrs. 2, and 2 for speech 2 voice (Pathological) Nose and Throat 2 Neurol. and Psychiatrist 1 Psychi. Soc. Worker 1	Hospitals—speech teachers, private physicians Manhattan Eye and Ear Educational students College League for Hard of Hearing	Historical, physical, psychiatric, educational, psychological, vocal phonetic	Individual, group and combination	Do not take Mentally Retarded Children. Primarily medical approach.

APPENDIX E

Evaluation of the Last Examination (Jan. 1939) Given to Prospective Teachers of Speech Improvement by the New York Board of Examiners

A. Scope of Examination

The scope of the present examination for Teachers of Speech Improvement in Day Elementary and Junior High Schools at the present include:

1. A written test
2. An interview test
3. A class teaching test
4. An appraisal of the applicant's record
5. A physical examination

An official circular of the Board of Education (Dec. 1938) does not indicate the credits allotted to each of the several parts of the examinations so that an objective appraisal of the procedure is not altogether possible. It is hoped that the Interview Test and the Class Teaching Test are given by examiners especially qualified for their tasks. Certainly none but expert clinicians, and preferably clinicians with teaching experience should be chosen as examiners.

The scope of the written examination, though not specifically indicated is assumed to be based on the academic course requirements as outlined on page 2 of the official circular. These requirements include courses in the diagnosis and remedial treatment of speech disorders, psychology of speech and related fields, clinical practice, physiology of speech, phonetics, voice and diction, and additional courses in general physiology, anatomy, play production, English literature and oral interpretation.

It is somewhat difficult to justify the inclusion of courses in play production, oral interpretation, and English literature as requirements for a Speech Improvement Examination. It would be less difficult to understand the inclusion of courses in literature for children and remedial reading. Such courses, however, are not mentioned in the Board's requirements.

B. General estimate and criticism of January, 1939 examination

The scope of the examination does not adequately measure the candidates' preparation as prescribed on page 2 of the Official Circular of Dec. 12, 1938. There were, for example, no questions on psychology of speech, the physics of speech, mental adjustments, or the psychology of childhood or adolescence.

Those parts of the examination concerned with speech pathology and speech correction (a very small part) seem to draw too heavily on two books used as texts in local speech courses. Many first-rate university speech departments outside of N. Y. C., those of the Universities of Iowa and Southern California, for example, use other books as their basic texts.

Too great emphasis is placed on knowledge of narrow phonetic transcription (at least 23 different numbered items) and credits for these questions are not specifically indicated. Candidates who have not learned a particular system of phonetic transcription are at a disadvantage which in no way is related to their general knowledge of phonetics or to their ability in doing corrective speech work on a phonetic basis. For example, candidates who know kinesiological phonetics and are acquainted with broad phonetic notations would automatically fail on almost 20 per cent (23 of 120 items) on the first part of the examination.